

X-1202S, X-1202S-AES, X-1202S-AES4

12x2 SDI Router with Dual or Quad 12x2 AES Audio



The X-1202S SDTV twelve input routing switcher provides a convenient, low cost way to route standard definition serial digital signals. The X-1202S routers are used for 270, 360, 540Mb/s and DVB-ASI serial digital signals. When the unit is ordered with the Dual 12x2 AES router or Quad 12x2 AES router options the AES output busses can be used in an "audio follow video" mode, or can be broken away from the video buss. It features redundancy protection by providing dual power supply and bypass relay options.

The router electronics are housed in a 1RU rackmount frame and controlled from the built-in front panel controls. Each model can also be purchased with an optional rack mount remote control panel that replaces the built-in control panel or can be used as a second control panel. All units can also be controlled by contact closures on the GPI control port or through the RS-232 or RS-422 serial remote control port using industry standard switcher protocols.

Optional SoftSwitch™ Features (+SS Option)

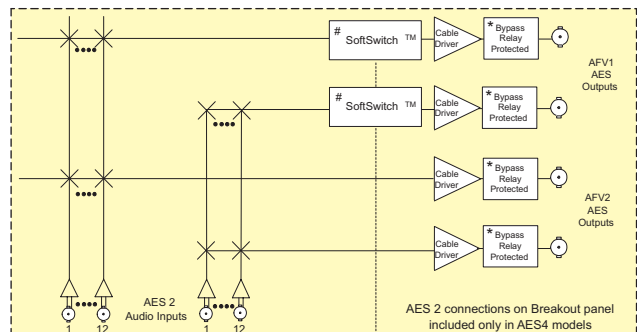
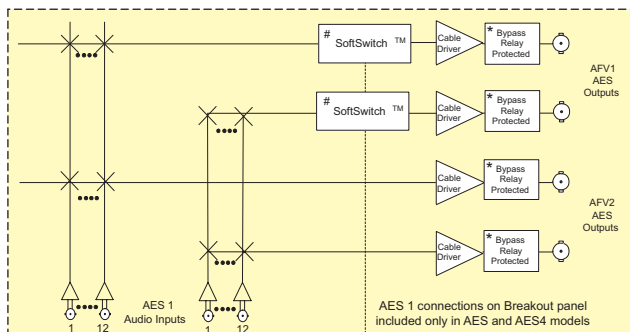
Routers equipped with the SoftSwitch™ option have the following additional features. The Video 1 output has adjustable vertical timing with respect to the genlock input, and line synchronizers on the video inputs can accommodate differences in timing up to approximately $\pm$ one half line providing clean video switches on the V1 output. All the AES outputs will have a continuous AES carrier locked to either the video genlock or DARS reference (when the DARS reference is used, Z bit alignment of the AES outputs is also guaranteed). The AES outputs that follow the Video 1 buss use Evertz® patented SoftSwitch™ technology to eliminate audible pops when switches are performed on synchronous audio sources.

Optional Embedded SoftSwitch™ Features (+ES Option)

Routers equipped with the Embedded SoftSwitch™ option have all the features of the SoftSwitch™ versions as well as the following additional features. The embedded audio on the Video 1 buss uses Evertz® patented SoftSwitch™ technology to eliminate audible pops when switches are performed. Embedded SoftSwitch™ is performed on all 4 audio groups.

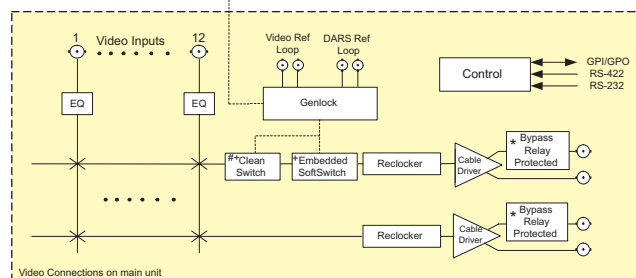
►Features & Benefits

- Supports SMPTE 259M (270Mb/s, 360Mb/s, 540Mb/s) video signals
- Units can be genlocked to an external source so that a "clean switch" can be achieved
- Autotiming of V1 buss inputs to perform a clean video switch when SoftSwitch™ or Embedded SoftSwitch™ option is installed
- Optional SoftSwitch™ technology eliminates hot-switch audio pops on AES outputs following V1 buss
- Optional Embedded SoftSwitch™ technology eliminates hot-switch audio pops on embedded audio on V1 buss
- With embedded SoftSwitch™ option, SoftSwitch™ is performed on all 4 audio groups
- Switch line is fully controllable from the front panel
- Video input presence detection displayable on the front panel
- Front panel or remote control panel versions available
- Second control panel can be ordered for either version
- Parallel GPI and RS-232 serial control
- Programmable source input names available on the front panel
- Optional video and audio input relay bypass for power failure bypass protection
- Optional dual power supplies



- * Relay Bypass available with bypass option
- # Clean video switching and 'popless' AES switching available with SoftSwitch™ version
- + Clean video switching and 'popless' AES and embedded audio switching available with Embedded SoftSwitch™ version

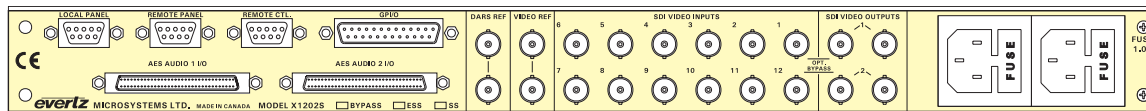
Refer to www.evertz.com for more detailed information



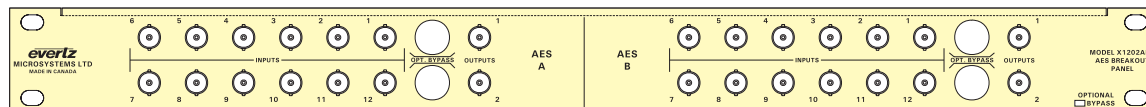
X-1202s, X-1202S-AES, X-1202S-AES4

12x2 SDI Router with Dual or Quad 12x2 AES Audio

►X-1202S Rear Panel



►X-1202 Audio AES Breakout Panel



►Specifications

SDI Video Inputs:

Standard: SMPTE 259M (270Mb/s, 360Mb/s, 540Mb/s) and DVB-ASI
Number of Inputs: 12
Connector: BNC per IEC 61169-8 Annex A
Equalization: Automatic up to 250m @ 270Mb/s with Belden 8281 (or equivalent)
Return Loss: > 15dB up to 540Mb/s
Input Timing (On +SS and +ES Optioned Routers)
Input Range: Measured with respect to the Genlock reference
 $\pm 1/2$ line when V phase = 1, H phase = 0

SDI Video Outputs

Standard: Same as Input
Number of Outputs: 2 per buss, 2 busses
Inputs 1 & 12 bypass protected with +BP option
Connector: BNC per IEC 61169-8 Annex A
Signal Level: 800mV nominal
DC Offset: 0V $\pm 0.5V$
Rise and Fall Time: 200ps nominal
Overshoot: < 10% of amplitude
Return Loss: > 15dB up to 540Mb/s
Jitter: < 0.2 UI
Output Timing (On +SS and +ES Optioned Routers)
Output Phase: Measured with respect to the Genlock reference
Adjustable 1 line to a full frame of delay - set by V phase parameter. The active video content will align to the nearest line only

AES Audio Inputs (AES & AES4 versions only):

Standard:
+B option: AES3-2003 balanced
+U option: SMPTE 276M single ended AES
Number of Inputs: 12 per buss, 2 or 4 busses optional
Connector (On breakout panel(s) provided):
+B option: Removable terminal strips
+U option: BNC per IEC 61169-8 Annex A
Signal Level:
+B option: 2-7V p-p $\pm 10\%$
+U option: 1V p-p $\pm 10\%$

AES Audio Outputs (AES & AES4 versions only):

Standard: Same as input
Number of Outputs: 2 per buss, 2 or 4 busses optional
Connector: Same as input
Signal Level:
+B option: 2V p-p nominal
+U option: 1V p-p nominal
Reference: From Video General Reference
DARS reference available with +HSS or +HES options
Video Reference:
Type: Menu selectable - depends on video format NTSC or PAL Color Black 1V p-p
Composite Bi-level sync (525i/59.94 or 625i/50) 300mV
Connectors: 2 BNC per IEC 61169-8 Annex A
Termination: High impedance loop through

DARS Reference (On +SS and +ES Optioned Routers):

Type: Digital Audio Signal with 48kHz sample rate
Standard: SMPTE 276M
Termination: High impedance loop through
Connector: 2 BNC per IEC 61169-8 Annex A
Signal Level: 1V p-p
Freq. Lock Range: ± 100 ppm from nominal

GPI Control Port

Number of Inputs: 14 opto-isolated, programmable functions
Number of Outputs: 4 sets of relay contacts, normally closed, programmable functions
Relay Max Rating: 1A at 30V DC

Serial Remote Control

Standard: RS-232 or RS-422, programmable baud rate
Connector: 9-pin female "D"
Protocol: GVG Ten XL ASCII, master or slave or remote control panel

Physical

Height: 1.75" (45mm)
Width: 19" (483mm)
Depth: 18.75" (477mm)
Weight: 8lbs (3.5kg)

Electrical

Voltage: Auto ranging 100-240V AC 50/60Hz 40W
Fuse Rating: 250V, 1 amp time delay
Safety: TÜV listed
Complies with FCC Part 15 Class A
EMI/RFI: Complies with EU EMC Directive

►Ordering Information

X-1202S	12x2 SDI video router
X-1202S-AES	12x2 SDI video router with 2 (12x2) AES busses (includes 1 AES breakout panel)
X-1202S-AES4	12x2 SDI video router with 4 (12x2) AES busses (includes 2 AES breakout panels)

Ordering Options

+SS SoftSwitch™ Option
+ES Embedded SoftSwitch™ Option
+BP Bypass Relay Protection
+2PS Redundant Power Supply
+RCP Rack Mount Remote Control Panel (replaces front control panel)

Must specify +B or +U version when ordering AES or AES4

+B Balanced AES Audio Breakout Panel
+U Unbalanced AES Audio Breakout Panel

Accessories

X-1202H-PANEL Additional Remote Control Panel (works in addition to front control panel)
X-1202ABO Unbalanced AES Audio Breakout Panel (for all 1202 series routers)
X-1202ABOB Balanced AES Audio Breakout Panel (for all 1202 series routers)
X-1202ABOB-BP Balanced AES (with Bypass Relays) Audio Breakout Panels (for all 1202 series routers)
X-1202ABO-BP Unbalanced AES (with Bypass Relays) Audio Breakout Panel (For all 1202 series routers)